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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,609	07/16/2003	Kurt Plotz	032745-037	6540

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EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT PAPER NUMBER

1771

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/619,609

Applicant(s)

PLOTZ, KURT

Examiner

Norca L. Torres-Velazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-11,13-16 and 32-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-11,13-16 and 32-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/619,529.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3-11, 13-16 and 32-34 have been considered but are moot in view of the new ground(s) of rejection.

Applicant has amended the independent claims to now recite the language “*consisting essentially of*”. It is the Examiner’s interpretation that the present language further narrows the scope of the claim. It is further noted that the transitional phrase “consisting essentially of” limits the scope of a claim to the specified materials or steps “and those that do not materially affect the basic and novel characteristic(s) of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) [MPEP 2111.03] Therefore, since the specification of the present invention only discloses a structure with a binder-consolidated glass fiber mat needled to a nonwoven mat of thermally fixed organic synthetic fibers, and one or more layers of polymeric coating on the outer glass fiber side of the carrier; structures including a additional layers other than those polymeric coating described in the specification would be precluded from Applicant’s invention.

The amendment now reincorporates the limitation of canceled claim 12. Further, the Applicant has also amended the claim to require that the fiberglass-containing mat is pre-consolidated with a binder.

In view of Applicant’s amendment, the Examiner now relies on US 5,616,395 to Baravian et al. and HIERS (US 6,092,622); and GREISER et al. (US 4,522,876) and HIERS (US 6,092,622).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 5, 9, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over GREISER et al. (US 5,017,426) in view of HIERS (US 6,092,622).

GREISER et al. discloses a laminate as a carrier web for roofing and sealing sheets with a two layer structure that reads on the present carrier, the reference further teaches that the needling is carried out in such a way that the needles first enter the synthetic fiber web and then penetrate through the material fiber web underneath and teaches pulling the synthetic fibers through the mineral fiber web. (Col. 2, lines 14-22). It is the Examiner's interpretation that it would be obvious to have organic fibers lying adjacent to the side of the fiberglass-containing mat. However, the patent is silent to having one or more layers coated on a glass fiber side of the carrier. HIERS et al. teaches a laminate structure that comprises a fiberglass containing mat and a nonwoven mat and teaches using needling to attach these. The reference further applies adhesive coatings to secure the "tufts" of fibers from the nonwoven mat to the surface. (Refer to Abstract and drawings).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the laminate of the '426 patent and provide with coatings with the motivation of securing the fibers from the nonwoven mat layer that penetrate the fiberglass mat to the surface of the mat as taught by HIERS.

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4. Claims 1, 3-5, 9-11, 15, 16 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over BARAVIAN et al. (US 5,616,395) in view of HIERS (US 6,092,622) and further evidenced by HEIDEL (US 5,171,629)

BARAVIAN teaches a two-layer textile reinforcement for the production of bituminous sealing sheets for roofing, that consists of a first layer based on a nonwoven cloth consolidated by mechanical or hydraulic bonding and thermo stabilized, needled to a second mineral fibers layer, which may be in the form of a grid, scrim or cloth of continuous or discontinuous mineral filaments. (Abstract) The reference teaches applying heat to consolidate the nonwoven and teaches the use of filaments of a thermoplastic synthetic polymer such as a polyester, copolyester, or polyamide. (Col. 2, lines 63-65 and Col. 3, lines 45-55). Baravian teaches that the second mineral layer preferably takes the form of a scrim of mineral fibers formed by wet or dry nonwoven processes, more particularly discontinuous glass fibers with chemical or thermal bonding. (Col. 3, line 65 through Col.3, line 5) The Examiner interprets chemical bonding as any type of resinous based binder. It is further the Examiner's position that the use of fiberglass mats pre-consolidated with a binder is known in the art of carrier web of the invention. This is evidenced by HEIDEL that discloses a carrier web that consists of a glass fiber mat and a mat of synthetic fibers, and teaches that the glass fiber mat can be preconsolidated using polymer binders or melamine resins. (Col. 2, lines 13-17) It is further noted that Baravian et al., teaches that the nonwoven sheet of polyolefin filaments is calendered under heat and pressure to achieve the desired shrinkage and density. (Col. 4, lines 45-57)

It is the Examiner's interpretation that the nonwoven base layer of the reference reads on the presently claimed nonwoven mat made of thermally fixed organic synthetic fibers and the

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mineral layer of the reference reads on the fiberglass-containing mat pre-consolidated with a binder. The layers are bound by needling.

However, the reference fails to specifically teach that part of the organic fibers penetrate through the fiberglass mat and lie adjacent to a side of the fiberglass containing mat that is opposite to the organic nonwoven mat. The reference is silent to the presently claimed one or more layers coated on a glass fiber side of the carrier, opposite the nonwoven synthetic mat. HIERS et al. discloses a flexible, thermal and acoustical insulating shield that has a needled, flexible, fibrous batt (40) and an insulating layer (43) of insulating fibers (44) disposed between opposite binding layers (41, 42) of binding fibers (45). The binding fibers of each binding layer are needledly disposed through the insulating layer and an opposite binding layer to provide tufts (46) of binding fibers protruding from the opposite binding layer so as to form a tufted upper surface. (Abstract) The reference teaches the use of glass fibers as the insulating fibers and the use of organic fibers such as polyester fibers and polyolefin fibers as the binding fibers. (Col. 9, lines 13-25) The reference further teaches the use of polyester adhesive applied to the batt by spraying or coating, the reference also teaches the use of acrylate adhesives. (Col. 9, lines 56 through Col. 10, lines 1-5)

It is the Examiner's interpretation of the reference that the fibrous batt of organic synthetic fibers of HIERS et al. equates to the nonwoven matt of the present invention, the insulating layer of glass fibers equates to the presently claimed fiberglass matt. The tufts of binding fibers protruding in the form of stitches from the opposite binding layer of HIERS et al. are equated to the organic fibers that penetrate through the fiberglass mat and lie adjacent to a side of the fiberglass-containing mat that is opposite to the organic nonwoven mat of the present

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invention. Further, with regards to the location of the organic fibers penetrating through the fiberglass mat, it is noted that it is the Examiner's position that these fibers penetrate and lie to the side opposite to the organic nonwoven mat. With regards to the one or more layers coated, the Examiner equates the coated adhesive layer of HIERS et al. to this limitation.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the reinforcement material and provide with organic fibers that penetrate through the fiberglass mat and lie adjacent to a side of the fiberglass containing mat that is opposite to the organic nonwoven mat with the motivation of producing a flexible material with the needled layers of the invention of Baravian et al., such that the resulting layers are substantially non-detachable from each other and form an integral composite fabric as taught by Hiers.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over BAVARIAN et al. and HIERS et al. as applied above, and further in view of HIERS (US 4,522,876).

HIERS ('876) discloses an integral textile composite fabric having at least one organic textile fiber layer of needled textile organic fibers and at least one glass fiber layer. (Column 1, lines 6-8) The glass fibers may be any of the conventional glass fibers: C-glass fibers, S-glass fibers, and E-class fibers, among others. (Column 6, lines 63-65) The needled fabric may be sized or coated or filled or impregnated in a variety of manners. It teaches the use of polyethylene, acrylic and polyester coatings and also that it may be impregnated with a resin. (Column 11, lines 55-66)

Since the references are directed to similar composite fabrics, the purpose disclosed by the '876 reference would have been recognized in the pertinent art of BAVARIAN et al. and

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HIERS et al. ('622). It is noted that the use of the particular glass fibers claimed herein would have been obvious at the time the invention was made to a person having ordinary skill in the art since these are conventional glass fibers known to be used in insulating products.

6. Claims 6-8, 14 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over BARAVIAN and HIERS as applied above, and further in view of HEIDEL et la. (US 5,171,629).

BARAVIAN et al. and HEIRS et al. fails to teach the use of filaments in the nonwoven and while the use of a binder to consolidate the fiberglass mat is discussed by HEIRS, the reference does not specifically suggests the use of a water insoluble binder such as a melamine resin or an urea resin binder.

HEIDEL et al. discloses a carrier web that consists of a glass fiber mat and a mat of synthetic fibers, which are needled together and are end-consolidated with a polymer-free low-formaldehyde melamine-formaldehyde precondensate. (Abstract) The reference teaches that the glass fiber mat contained in the carrier web according to the invention can be preconsolidated using polymer binders or melamine resins. (Column 2, lines 13-17) With regards to claims 6 and 11, the reference also teaches the use of polyester fibers in the synthetic fiber nonwoyen and that it can be built up from staple fibers or from continuous fibers. Random nonwovens of continuous fibers, in particular types which have undergone a certain pre-consolidation by a calendering process, such as, spun-bonded materials, are particularly preferred. (Column 2, lines 25-30 and lines 44-51)

To produce the carrier web the synthetic fiber nonwoven is needled to a glass fiber nonwoven, which is preconsolidated if appropriate, and is then impregnated by spraying, padding or dipping with an aqueous melamine-formaldehyde precondensate. (Column 3, lines

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48-54) The reference teaches the use of their invention as a decoration carrier. (Column 4, line 4)

Since HEIDEL et al. is also directed composite webs, the purpose disclosed by HEIDEL would have been recognized in the pertinent art of HEIRS et al and BARAVIAN et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the textile composite fabric and further provide it with a melamine resin binder with the motivation of improving the burning properties of the material and providing it with high flexibility as disclosed by HEIDEL et al. (Column 3, lines 31-34).

7. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over HEIRS et al. and BARAVIAN et al. as applied above, and further in view of FREKENBURG et al. (US 4,569,088).

BAVARIAN et al. and HEIRS et al. disclose the claimed invention except for using mechanical needling instead of hydraulic needling, FRANKENBURG et al. shows that hydraulic needling is an equivalent process known in the art. Therefore, because these two types of needling were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the mechanical needling of BAVARIAN et al. and HEIRS et al. for the hydraulic needling of FRANKENBURG et al.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1, 3-11, 13 and 15-16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4-6, 9-10 and 17 of copending Application No. 09/619,535. Although the conflicting claims are not identical, they are not patentably distinct from each other because the carrier of the present invention consists essentially of a fiberglass containing mat pre-consolidated with a binder that is equated to the non-woven mat containing glass staple fibers pre-consolidated with a resin of the copending application, a non-woven mat made of thermally fixed (shrunk) organic synthetic fibers equated to the nonwoven layer of synthetic fibers of the copending application. It is noted that the two layers in both applications are bound together by needling and part (or portion) of the synthetic fibers penetrate through the fiberglass mat (or layer of glass fibers). It is the Examiner's interpretation that both applications claim the same product using similar language in the claims, therefore, the coverings based on a carrier coated with one or more layers with a carrier that equates to the laminate of the copending would have been obvious since the copending application describes that the laminate is useful in wall and floor coverings constructions.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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10. Claims 1, 4, 5, 9, 10 and 15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 5,017,426 in view of HIERS (us 4,522,876). The '426 patent discloses a laminate as a carrier web for roofing and sealing sheets with a two layer structure that reads on the present carrier, the reference further teaches that the needling is carried out in such a way that the needles first enter the synthetic fiber web and then penetrate through the material fiber web underneath and teaches pulling the synthetic fibers through the mineral fiber web. (Col. 2, lines 14-22). It is the Examiner's interpretation that it would be obvious to have organic fibers lying adjacent to the side of the fiberglass-containing mat. However, the patent is silent to having one or more layers coated on a glass fiber side of the carrier. HIERS et al. teaches a laminate structure that comprises a fiberglass containing mat and a nonwoven mat and teaches using needling to attach these. The reference further applies adhesive coatings to secure the "tufts" of fibers from the nonwoven mat to the surface. (Refer to Abstract and drawings).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the laminate of the '426 patent and provide with coatings with the motivation of securing the fibers from the nonwoven mat layer that penetrate the fiberglass mat to the surface of the mat as taught by HIERS. (Above)

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

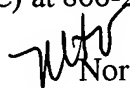
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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Norca L. Torres-Velazquez
Examiner
Art Unit 1771

February 11, 2005